

Evaluation and Characterization of SARS-CoV-2 Antibody in Convalescent Volunteer Plasma Donors for Potential Therapeutic Use

Grant Award Details

Evaluation and Characterization of SARS-CoV-2 Antibody in Convalescent Volunteer Plasma Donors for Potential Therapeutic Use

Grant Type: Clinical Trial Stage Projects

Grant Number: CLIN2COVID19-11775

Project Objective: In this CLIN2 proposal, Dr. Zaia and the City of Hope Team propose to create a COVID-19 Coordination Program that will 1) develop a rapid response online screening program for California to identify potential COVID Convalescent Plasma (CCP) donors, 2) provide laboratory support to screen CCP, and 3) enable the potential treatment of critically ill COVID 19 patients with the convalescent plasma by training licensed field physicians to request the FDA emergency IND and/or compassionate use options and 4) perform a prospective analysis in CCP recipients comparing the clinical course of the disease with the titer and neutralizing properties of the CCP infused. This project will bring the resources of the CIRM Alpha Stem Cell Clinic Network expertise and expand its outreach to medical centers in underserved communities in California. The information gained from the evaluation of the safety and effectiveness of convalescent plasma is highly needed and may be of significant value for patient management in epidemic seasons that could occur with future pandemics of this nature.

Investigator:

Name:	John Zaia
Institution:	City of Hope, Beckman Research Institute
Type:	PI

Disease Focus: COVID-19, Infectious Disease, Respiratory Disorders

Award Value: \$749,999

Status: Active

Grant Application Details

Application Title: Evaluation and Characterization of SARS-CoV-2 Antibody in Convalescent Volunteer Plasma Donors for Potential Therapeutic Use

Public Abstract:**Therapeutic Candidate or Device**

The therapeutic candidate is COVID-19 convalescent plasma (CCP)

Indication

The target indication is treatment of severe COVID-19 infection

Therapeutic Mechanism

Neutralizing antibodies are part of the humoral response of the adaptive immune system against viruses, and can be detected in plasma of convalescent individuals. Transfusion of COVID-19 convalescent plasma can provide neutralizing antibodies that inhibit SARS-CoV-2 infection in COVID-19 patients.

Unmet Medical Need

There currently is no approved treatment of COVID-19 infection, and CCP is available now to use in severely ill patients.

Project Objective

Prospective observational study completed

Major Proposed Activities

- Development of a screening program in California to identify potential CCP donors
- Characterization of the titer and neutralizing properties of anti-SARS-CoV-2 antibodies in CCP
- Prospective analysis in CCP recipients based on the clinical course of the disease and the CCP immunogenic profile

Statement of Benefit to California:

This proposal provides support for an ongoing state-wide effort to use COVID-19 convalescent plasma (CCP) to treat severely ill patients. It will identify CCP that contains high levels of potent anti-SARS-CoV-2 antibodies, and compare against clinical outcome in patients. In addition to providing a needed service at this critical time, the information on the safety and effectiveness of CCP may be of significant value for patient management in epidemic seasons that could occur in the future.

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